

Title (en)

Infrared spectrometer measurement of droplets collected from an oil mist in a breather pipe of a gas turbine

Title (de)

Infrarotspektromettermessung von Tropfen, die von einem Ölnebel in einer Entlüftungsleitung einer Gasturbine gesammelt wurden

Title (fr)

Mesure par spectromètre à infrarouges de gouttelettes collectées à partir d'une bruine d'huile dans un tuyau d'aération d'une turbine à gaz

Publication

**EP 2645100 A1 20131002 (EN)**

Application

**EP 12161510 A 20120327**

Priority

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Abstract (en)

The present invention relates to a method for analysing a droplet fraction of an oil mist sample of a gas turbine. A collecting device collects the oil mist sample (110; 120), wherein the collecting device (110; 120) is arranged within a breather pipe (130) which is coupled to the gas turbine such that oil mist is flowing through the breather pipe (130). The droplet fraction is separated from a gaseous fraction of the oil mist sample by a filter device (105), wherein the filter device (105) is soaked with the droplet fraction, the droplet fraction is extracted from the filter device (105) by using a tetrachloroethylene solvent. A composition of the droplet fraction is analysed by a spectrometer (107).

IPC 8 full level

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Citation (applicant)

- GB 2408798 A 20050608 - HORIBA LTD [JP], et al
- GB 2398382 A 20040818 - HORIBA LTD [JP]
- US 6369890 B1 20020409 - HARLEY PHILIP [GB]
- EP 1936358 A1 20080625 - HORIBA LTD [JP], et al

Citation (search report)

- [I] DE 19704461 C1 19980507 - HENGST WALTER GMBH & CO KG [DE]
- [A] EP 1528385 A1 20050504 - MIURA KOGYO KK [JP], et al
- [A] US 4213044 A 19800715 - PERROTTA KENNETH A [US]
- [A] DE 102006026002 A1 20071206 - HENGST GMBH & CO KG [DE]
- [A] ASIKAINEN V ET AL: "Mineral oil residues on HVAC components: Measuring methods", BUILDING AND ENVIRONMENT AUGUST 2003 ELSEVIER LTD GB, vol. 38, no. 8, August 2003 (2003-08-01), pages 1057 - 1061, XP002681977, DOI: 10.1016/S0360-1323(03)00059-3
- [A] SUURONEN KATRI ET AL: "Respiratory exposure to components of water-miscible metalworking fluids.", THE ANNALS OF OCCUPATIONAL HYGIENE OCT 2008 LNKD- PUBMED:18678881, vol. 521-7, no. 7, October 2008 (2008-10-01), pages 607 - 614, XP002681978, ISSN: 1475-3162

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